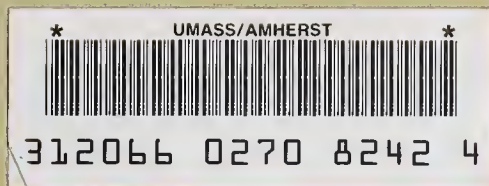


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Guidelines for  
Operations  
And  
Land  
Stewardship



Executive Summary

J. Harry Rich State Forest



Massachusetts Department of Environmental Management



**Guidelines for  
Operations  
And  
Land  
Stewardship**



**J. Harry Rich State Forest**

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**Division of Forests and Parks  
Division of Planning and Development**

**March 1988**

**Commonwealth of Massachusetts  
Michael S. Dukakis, Governor**

**Executive Office of Environmental Affairs  
James S. Hoyte, Secretary**

**Department of Environmental Management  
James Gutensohn, Commissioner**



# J. Harry Rich State Forest

## GOALS PLAN

### Executive Summary

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## INTRODUCTION

J. Harry Rich State Forest is one of the few state-owned tree farms in the nation. The Forest's 507 acres are located in Middlesex County within the Town of Groton, and bordering the Town of Pepperell. The Forest is easily reached from State Route 495 via State Route 119 and from State Route 3 via State Route 40 to Route 119. J. Harry Rich is currently managed by the Supervisor of Willard Brook State Forest and Regional Supervisor within the Division of Forests and Parks which is a part of the Department of Environmental Management.

## DESCRIPTION AND PURPOSE OF THE GOALS PLAN

The Department of Environmental Management's GOALS planning team has carefully analyzed J. Harry Rich for several years in an attempt to guide its future management. GOALS (Guidelines for Operations and Land Stewardship) is a systematic planning program in which management plans that determine an area's resources, development capabilities and protection responsibilities are prepared for state forests and parks.

Through the GOALS process, the GOALS team identifies issues and opportunities, analyzes park resources, designates Land Stewardship Zoning and prepares recommendations for future action. Public participation in the form of periodic review and evaluation is an important component of this process.



**A Stand of White Pine**



## J. HARRY RICH STATE FOREST HISTORY

The original Forest area which was settled around 1650 by English farmers was cultivated from Colonial times until the middle 1800's when it was abandoned. The land then reverted back to forest. The property (445 acres) was eventually purchased by the Lawrence family in 1890. They created a small White Pine plantation.

In 1918, the East Pepperell dam was built. The dam flooded roughly 140 acres of the original Forest and created Pepperell Pond, which now abuts the Forest. From 1923 to 1952, J. Harry Rich, a professor-emeritus of Forestry at the University of Massachusetts, acquired the present amount of forest acreage. Through forest management, he established a forest of predominantly White Pine.

In 1956, the Forest, under Professor Rich's ownership, was dedicated as a certified Tree Farm. The Forest continued to be managed by Professor Rich until his death in 1964 when title was transferred to the Rich Tree Farms and Forestry Corporation. Under both Professor Rich's and the Corporation's ownership, the Forest was silviculturally managed producing nearly 4 million board feet of timber and 2,000 cords of fuelwood.

The Commonwealth of Massachusetts purchased the Forest in 1981. It is managed by the Department of Environmental Management's Division of Forest and Parks.



**White Pine Regeneration**



## REGIONAL CONTEXT

J. Harry Rich State Forest lies in the Northeastern Region of Massachusetts in the Town of Groton and is adjacent to the Town of Pepperell. This area was primarily used for agricultural purposes from the mid 1600's through the 1700's. While farms remained active in the 1800's, much of the economy of the area was based in manufacturing. For example, Pepperell was known for its paper industry with the first large mills built in the early nineteenth century. Manufacturing industries now rank first in Pepperell and second in Groton as the leading sources of employment.

## TOWN DESCRIPTIONS

### Groton

The J. Harry Rich State Forest lies in the northwest corner of the Town of Groton. Groton contains over thirty-three square miles and had a 1980 population of 6,093. The population of the Town increased by roughly nineteen percent between 1980 and 1987. (See Table 1).

### Pepperell

Although the J. Harry Rich State Forest does not lie in the Town of Pepperell, it is important to investigate the character of the Town since Pepperell abuts the Forest on the north and lies across the Nashua River to the west.

Pepperell contains twenty-three square miles and had a 1980 population of 7,976. The population of the Town increased by roughly fourteen percent between 1980 and 1987.

Table 1: Population Figures

<u>Town</u>	<u>1980</u>	<u>1987</u>	<u>% Change 1980-1987</u>
Groton	6,093	7,276	+ 19%
Pepperell	7,976	9,086	+ 14%

Source: Groton and Pepperell Census Figures

## ROLE OF THE J. HARRY RICH STATE FOREST

The location and past management of J. Harry Rich State Forest help define the Forest's role as open space in Middlesex County. The proximity of the property to the Nashua River allows it to be used as an access point to the River for various river related recreational activities. The Forest also serves as an important link in the Nashua River Greenway in terms of helping to provide river protection, preserve the scenic character of the river, provide flood storage and protect animal and plant habitats.

Both the history of intensive forest management at J. Harry Rich and its tree farm status provide a great opportunity for the Forest to be used as a demonstration and interpretive area where good forest management practices can be exhibited to visitors.

There are several existing and potential trails at J. Harry Rich. The woods road network at the Forest is used for a variety of passive trail recreational interests including hiking, horseback riding and nordic skiing. The Department has acquired the abandoned B&M Railroad Right-of-Way which forms the eastern boundary of the Forest. The ROW will offer long-distance trail opportunities between Nashua and Hollis, New Hampshire and Ayer. The ROW will be used as a Rails Trail and will provide several long distance recreational opportunities.

In addition to the above functions, the Forest also serves as habitat for a variety of wildlife and plant life. The river and floodplain ecosystem along with woodlands provide a variety of habitats that support a diversity of plant and animal species.

## PLANNING ISSUES AND OPPORTUNITIES

Through the planning process, public meetings and discussions with the Citizens Advisory Committee and other interests, a number of issues and opportunities were identified which have been addressed in this GOALS plan.

These issues include:

- Forest management: How to manage the Forest so that White Pine continues to predominate and what techniques to use in order to achieve this goal?
- Forest recreational development: What types of recreation should be encouraged or discouraged within the Forest?
- Interpretation of the Forest: Other than being interpreted as a Demonstration Forest, what other aspects of the Forest could be interpreted?
- Trail use, design and management within the Forest: How should various trails be used, designed, and managed in order to both accommodate and enhance these uses?
- Land acquisition and land protection: What opportunities may be available to further protect both the river and the Forest?
- Ayer to Hollis Depot B&M Railroad Right-Of-Way (ROW): What uses should be allowed; and, how should the trails and culverts be designed to accommodate these uses?
- Wildflower protection and cultivation: What areas containing wildflowers are worthy of special protection?
- Forest security and protection: What types of law enforcement and protection can be used?



## PLANNING ISSUES (cont.)

- Former Groton Town dump adjacent to the Forest: Should DEM acquire this site and how could it be used if acquired?
- Wildlife management: How can wildlife be protected and their habitat enhanced as well as managed?
- Tree farm status: How should the Forest be used to ensure compatibility with its tree farm status?
- Management of islands in Nashua River: How should these islands be used, managed and protected?
- Future Facilities Development: What facilities are needed in order to accommodate Forest and ROW users, equipment and personnel?
- Cultural Resources: Where are the cultural resources and what is their historic significance?



**Canoeing on the Nashua River**

## EXISTING CONDITIONS

### NATURAL RESOURCES

Located in the Eastern Upland Region of Massachusetts, J. Harry Rich State Forest is subject to a variable temperate climate characterized by mild summers and cold winters. Normal air temperatures in Groton are 73.6° F in July and 26.7° F in January.

J. Harry Rich State Forest is a low-lying area, gently sloping from the highest elevation of 245'ASL(at the Railroad Right-of-Way) to the edge of the Nashua River (elevation, 200') which forms its western boundary.

The current landform of the Forest was created by the southerly movement of the glacier that covered much of New England as recently as 12,000 years ago.

Numerous brooks flow through and originate within the Forest. Nod Brook, the largest brook, is located at the southern portion of the Forest.

Because of its location on the Pepperell Pond area of the Nashua River, the Forest has an "edge" which supports a rich variety of plant and animal species. The extensive aquatic, emergent and riparian vegetation zones of the Ox Bow attracts herons, swallows and turtles along with other animal species that live in and around wetland areas.

J. Harry Rich State Forest is located within the Transitional Hardwoods Zone. Much of the property is composed of cultivated tree stands which are predominantly White Pine. The White Pine stands are approximately 40-60 yrs old, and the Red Pine are 40-50 years old. There are two areas of the Forest that are particularly special for type or size of vegetation that warrant special protection through the Land Stewardship Zoning classification policy. One is an area near the Railroad Right-of-Way (see Zoning map-Unique Resource Area-Natural area) containing a climax swamp with Hemlock and Yellow Birch trees. This area is special because so few swamps in Northeastern Massachusetts have been allowed to reach this climax stage as many were at one time drained and used for agricultural purposes. Another special vegetative area exists where White Pine trees have grown to a larger size than usual for their age (see Zoning map- Natural Resource Management Area- Natural zone (A).

The Forest itself, although composed predominately of 60 year old White Pine stands, is not as uniform as one would think; Interspersed are plantations of younger Red and Scotch Pines and Norway Spruce, open canopy glades, swamps, and trees of



most producing hardwoods. Many berry-bearing bushes in the understory help provide food for various songbirds and small mammals. There have been reported sightings of turkey and bobcat in the Forest.

There is a significant amount of open space in the vicinity of the J. Harry Rich State Forest, the Nashua River and the Ayer-Hollis Depot Railroad Right-of-Way. The Department of Environmental Management is investigating possible acquisition of a few small parcels along the ROW. These parcels may be used as access points to the Rails Trail as well as provide linkage to the Forest.

The open space which exists across the Nashua River provides a scenic amenity to Forest users.

## PHYSICAL FEATURES

### TRANSPORTATION

#### Roads

The main entrance to the Forest is located at the corner of Nod Road and Common Street which both intersect with Rte. 119. A small woods road that is covered with gravel provides access to the Forest.

The only parking area is presently off the main Forest road and 1,000 feet from Nod Road, It is graveled and has a capacity of around 20 vehicles.

### PROPERTY BOUNDARIES

According to the deed, there are 506 acres in the J. Harry Rich Tree Farm; 140 acres of which are under water due to the Pepperell Dam.

The property boundaries of the Park are physically well delineated--easterly by the railroad bed, northwesterly by the thread of the river, southwesterly by Nod Brook and southerly by Nod and Sand Hill Roads. Such bounds help to maintain the integrity of the Park from encroachments.

## FORESTRY

The Division of Forests and Parks is committed to multiple-use objectives for lands under its jurisdiction. These objectives aim to provide the most services to the largest number of people while seeking to sustain the yield of all amenities from forest resources.



## Forestry (continued)

White Pine at J. Harry Rich will continue to be harvested in order to provide forest products. For this purpose, normal tree succession will be altered to continue to grow predominantly White Pine. A diversity of age classes is created in order to product forest products on a more sustained basis.

The harvesting of forest products not only has an impact on vegetation, but also on wildlife, water quality and quantity, forest recreation and aesthetics.

By recognizing wildlife needs, forest management will guarantee a constant presence of open areas, snag and den trees and the maintenance of critical wildlife habitats.

Because of the Forest's proximity to the Nashua River, it is important that forestry practices be properly managed to reduce erosion and resulting water quality problems.

Some recreational uses might be curtailed temporarily from certain areas for safety reasons while management work is being conducted. Access trails created and maintained for proper forest management provide opportunities for hunting, hiking and other recreational uses.

Most adverse visual impacts associated with forest management are short-term in duration. The presence of slash is the most objectionable forestry by-product.

## FORESTRY REGULATION

Other than creating a diversity of age classes and species composition in certain areas, regulation to create a sustained yield of forest products from this small amount of acreage alone should not be initiated. However, the Forest will be considered with regard to forestry regulation in conjunction with other state-owned forests in Region II.

## RECREATION

### TRAILS SYSTEM AND USE

The trails system within the Forest consists of 4 1/2 miles of mostly unimproved woods roads and trails(450 feet total). The woods roads are used for motorized and non-motorized recreational uses such as horseback riding, hiking and cross-country skiing.

DEM now owns the abandoned B&M Right-of-Way which forms the eastern boundary of the Forest. This ROW is currently being used by horseback riders and by motorized vehicles.

### NASHUA RIVER

The Nashua River forms the western boundary of the Forest. Canoeing and boating are popular uses of the River. In addition, people fish for bass and trap muskrat and beaver along the river.

## INTERPRETATION

No formal interpretive programs are currently offered at J. Harry Rich State Forest.

## HISTORIC/CULTURAL RESOURCES

J. Harry Rich State Forest has an abundance of cultural features as identified by the DEM Cultural Resources Baseline Inventory which was conducted during 1983 and 1984. The Inventory provided general information on the cultural and historic resources of the Forest and Park system. In-depth studies into most of the resources at the Forest are needed to determine their significance and the degree of resource protection and management required.

The following is a description of the known cultural sites within J. Harry Rich State Forest.

- \* Dating back to 1656, an area was the site of John Tinker's Trading Post. John Tinker owned and operated the outpost and lived in Lancaster, often using the Nashua River for transportation.
- \* Location of Nutting Farm Plantation. Granite posts remain.

- \* An old cart path that crossed the Forest to a spot in the river known as the Stoney-Wading-Place, or Stoney - Fordway. This path became the stagecoach road from Boston to Keene, New Hampshire.
- \* Groton's first settlement was located in the Forest in the early 1600's. Numerous cellar holes are all that remain of these settler's homes.
- \* A succession of mills that took advantage of the Nashua River's steady flow were located just outside the forest boundary: 1794 -- corn and grist mill; 1828 -- grist mill; 1847 -- J. Whitcomb Mill, and from 1856 - 1920 -- Hollingsworth Mill.
- \* Old B&M Railroad line from the industrial era, first in use around 1848.
- \* Charcoal pits between 50 - 80 feet in diameter are scattered throughout the Forest. Charcoal was produced here and may have been used to power locomotives on the nearby railroad line.

## AESTHETIC FEATURES

Possibly, the most significant scenic feature of the Forest is the Pepperell Pond - Nashua River area. In addition, there are White Pine stands and plantations of Red and Scotch Pine and Norway Spruce, open glades, swamps and several attractive wildflowers growing along trails and the banks of brooks.

## MANAGEMENT RESOURCES

### PERSONNEL

At the present time, there are no personnel assigned to the J. Harry Rich State Forest. The overall supervision and maintenance of the area is the responsibility of the supervisor of the Willard Brook State Forest. This basically comes in the form of a once or twice a week surveillance of the area or more often if the need arises.

### EQUIPMENT

There is no equipment specifically assigned to the area. Any equipment needed to do any type of work on the area is brought down from the Willard Brook State Forest. There are no buildings to house any equipment. Whatever equipment is needed is used at the Forest and then returned to Willard Brook at the end of the day.



## FOREST FIRE MANAGEMENT

Due to the sandy soil conditions in and along boundaries of the property, the area is prone to fast as well as deep burning fires in the low, humus filled sections.

Some roads in the Forest are deeply furrowed and are inadequate for use by forest fire fighting equipment.

## EQUIPMENT

#64 and 1 Tank Truck (1500 gals) at Great Brook Farm State Park, North Carlisle.

#65 (Four wheel drive Forest Fire truck) at Willard Brook Forest in Townsend.

## INSECT PEST CONTROL

The Bureau of Shade Tree Management and Insect Pest Control has responsibilities for identification, treatment, and control of diseased or infested trees within J. Harry Rich State Forest.

## LAW ENFORCEMENT

The Forest is presently protected with the following types of law enforcement coverage:

1. Environmental Police Officers (EPO's). The Division of Fisheries, Wildlife, and Environmental Law Enforcement has officers assigned to areas of the state to enforce the states fish and game laws on private and public lands. This officer spends a certain percentage of his/her time in the state's forest and parks in his/her area enforcing the fish and game laws and the Department of Environmental Management, Division of Forests and Parks, rules and regulation (304 CMR) covering that particular park or forest.
2. The local Police Department also provides assistance in monitoring the behavior of people using the area. They have been very helpful in assisting DEM with any problems that have arisen.
3. State Police. The Massachusetts State Police are a source of police assistance that are used if needed.

## LAND STEWARDSHIP ZONING

The GOALS team has made the following recommendations as to how J. Harry Rich State Forest should be zoned. A synopsis of the the purpose and management guidelines of each zone is listed along with a justification as to why particular areas of the Forest should be included in each zone. The recommended zoning scheme is shown graphically on the Land Stewardship Zoning Map. In addition, the completed zoning classification is available for public review at the Willard Brook State Forest Headquarters and the Region 2 Headquarters in Carlisle.

### UNIQUE RESOURCE ZONE

#### Natural Areas Subzone

Purpose: protect an area's unique natural resources for their scientific, ecological and educational values. Natural areas will be managed in order to maintain or enhance significant resource features. Examples include: habitats for rare plant or animal species, exemplary natural communities or unusual geologic features.

There is a climax swamp type (5 acres) containing Hemlock and Yellow Birch vegetation in the Forest that is regionally rare enough to justify inclusion of this site in the Unique Resource Zone/Natural Areas Subzone (see the Land Stewardship Zoning Map for location). This swamp type is special and uncommon in Northeastern Massachusetts since most swamps in this region have not been allowed to remain in a climax stage.

#### Cultural/Historical Subzone

Purpose: recognize and provide for the protection of an area's cultural, visual and historic features. Examples include: archaeological sites, historic sites, historic landscape ruins and homesteads.

There are no known unique cultural/historic resources that have been identified at the Forest that are significant enough to warrant inclusion in this Sub-Zone. Further investigation is needed.

### ENVIRONMENTAL PROTECTION ZONE

Purpose: offer protection to soil, water and other natural resources which may suffer irreparable damage by inappropriate management or use. This zone is designed for land which is sensitive for a specific reasons: steep slopes, erodable soils, wetlands, etc.

The GOALS team has identified several natural features that require protection through this zone due to the sensitivity of the resource or the uncommon and special nature of the Forest

## ENVIRONMENTAL PROTECTION ZONE (cont.)

vegetation and habitat. All land, including islands, that is below the 200' contour along the Nashua River should be included in this zone to protect the river and shoreline ecosystem as well as its aesthetic value. Inclusion of this area within the Environmental Protection zone limits activities according to the management guidelines associated with this zone along the shoreline. DEM supports the sentiments of the Nashua River Watershed Association in not recommending the use of fuel run motorized boats on the River.

## NATURAL RESOURCE MANAGEMENT ZONE

Purpose: designed for land which can appropriately provide sustained yields of forest and agricultural products, water resources, wildlife and dispersed outdoor recreation.

Most of the Forest has been included in this zone because the land can appropriately be managed for forest products, dispersed outdoor recreation and wildlife while providing for sound management of the Forest's water and wetland resources. Most of the Forest has been actively managed for White Pine in the past; and, the investigation of the GOALS team has determined that the management guidelines of this zone provide sufficient protection for the majority of the Forest.

There is a special vegetative area of the Forest that is included in this zone but should be managed in the near future as a natural area. This area is the site where White Pine trees have grown to a large diameter. Though these pines are roughly the same age as other pine stands in the Forest, site conditions here (soils, wetness) are right for good pine growth; and, because of good management, these trees are larger in diameter than other White Pine on the property. It will be the policy of the Department to prevent traditional forest harvesting at this site, unless salvage cuts are necessary to remove trees that are hazardous to Forest users along nearby trails. These large trees also have wildlife habitat value since hawks and herons prefer large trees for nesting. This location could also be the site for wildflower plantings because the area will not be disturbed, is accessible from one of the Forest's main trails and is on the river's edge. (see Zoning map - section A)

Another designated natural area in this zone is located alongside a brook which extends for a distance of 500' from the main Forest trail to the Nashua River (see Zoning Map section B). Numerous species of wildflowers, ferns and Lycopodium grow there. This area is reserved for demonstration, propagation and taxonomic study of indigenous wildflowers and ferns.



## DEVELOPED LANDS ZONE

### Intensive Recreation Areas

Purpose: designate land areas capable of providing high quality outdoor recreation and sustaining relatively large numbers of participants at one time.

The abandoned Railroad Right-of-Way from Ayer to the New Hampshire line will be zoned as an Intensive Recreation Area. The width of the former railroad bed can continue to support intensive use and will be used as a long distance Rails Trail with a portion of it to be paved for bicycle use.

### Administration Areas

Purpose: designate and provide land areas and facilities for the efficient administration of forests and parks. This is the area for administration and maintenance buildings and facilities.

At this time, there are no sites at the Forest that can be definitely zoned under Administration Areas since the exact location of administration facilities has not yet been determined. An area near Nod Road which has been identified as having potential for administration and recreation facilities will be discussed in the Reserved Areas section.

### Reserved Areas

Purpose: designate land suitable for future Intensive Recreation or Administration Areas.

A small area near the intersection of Nod Road and the abandoned Railroad Right-of-Way has been included in the Reserved Area of the Developed Lands Zone. After investigation of the soils, topography, hydrology and other natural and cultural resources, it was determined that this area can appropriately support administration uses, intensive recreation uses and development of this site for a Forest Information Center and Forest headquarters. Since further study is required to determine the exact location of these facilities, this section of the Forest will be included in Reserved Areas until studies have been completed. Based upon results of these studies, this section will be rezoned into the Intensive Recreation and Administration Areas.

## RECOMMENDATIONS

### RECREATION

#### TRAIL USE

In addition to making recommendations which are compatible with its own priorities, DEM should follow the recommendations/priorities suggested by the President's Commission on Americans Outdoors.

#### Trails/Woods Roads

Motorized vehicles will not be allowed in the Forest. Such types of recreation as hiking, nordic skiing, horseback riding, or jogging will be allowed.

#### Railroad Right-of-Way (ROW)

The Railroad Right-of-Way will be used as a recreational Rails Trail. Motorized wheeled vehicles will not be allowed. The ROW should be divided into a hard surface and a soft surface to provide for a two-trail system. These trails should be separated in some way possibly by vegetation.

DEM will honor all valid crossings. Requests for new crossings will be subject to review. Maintaining integrity of the trail is DEM's number one priority. Except for "at grade" crossings, DEM will limit and restrict rights of use at potential "non-at grade" crossings.

Following meetings with public officials from towns that abut the ROW, more information regarding its future management will be forthcoming.

Allowed uses the ROW would include:

- \* hiking
- \* horseback riding
- \* nordic skiing
- \* bicycling
- \* jogging

#### TRAIL IMPROVEMENT

#### Trails/Woods Roads

The most pressing need is to gravel the Woods/roads. The use of geo-textile material would "stretch" the amount of gravel used in some applications. There is no on-site gravel available; therefore, all materials will have to be trucked into the Forest.

## NASHUA RIVER

### River Access/Canoe Launch

At present, access to the River is provided at the Groton town launch. DEM should work with the Department of Fisheries, and wildlife and Environmental Law Enforcement to secure another canoe launch site along the River.

### Canoe Regulations

DEM will also develop canoing regulations. We recommend that a primitive camping area be located at the peninsula (Ox Bow) in the Forest.

### Primitive Canoe Camp

We recommend that a primitive camping area be located at the peninsula (Ox Bow) in the Forest.

## INTERPRETATION

The J. Harry Rich State Forest should serve as a demonstration forest offering forestry interpretation. DEM wants to demonstrate that it is possible to harvest timber, grow wildflowers, provide recreational uses and enjoy aesthetically pleasing scenery all at one facility.

Historical and Cultural sites could be interpreted for the public as well.

## FORESTRY MANAGEMENT

### SILVICULTURE

- \* Remove suppressed trees through commercial sales during next decade
- \* Encourage or plant White Pine regeneration in under stocked stands
- \* Thin Red Pine plantation to favor crop trees.

### DEMONSTRATION FOREST

- \* Set up and continue management of White Pine forest as an Interpretive woodland
- \* Remeasure and mark trees in the five  $\frac{1}{2}$  acre pruning plots
- \* Demonstrate Shelterwood and Intermediate Harvesting Practices for White Pine stands.
- Protect Cultural Resources.



## Silviculture As It Relates To Wildlife

Poplar, in its seedling and sapling state and particularly as sprouts, are delicacies and provide an ideal habitat for a variety of native wildlife, including ruffed grouse, white-tail deer and cottontail rabbit. Because this type of early successional habitat is dwindling in the Forest small patches will be created in areas where there are Poplar in order to both encourage sprouting and to create age class diversity.

### ACQUISITION

- \* Pursue acquisition of land across the Nashua River from the Forest between the River and River Road from the Rte. 119 intersection to Canal Street.
- \* Review acquisition possibilities for land that becomes available that abuts the Railroad Right-of-Way.
- \* Obtain conservation restrictions if available.

### CULTURAL FEATURES

- \* Perform an archaeological reconnaissance survey of the Forest's cultural resources. Conduct this study prior to making capital improvements.
- \* Protect the identified cultural features/site that are potentially significant.

### WATER RESOURCES

- \* Implement the Acquisition Recommendation to acquire and maintain the buffer strip across the river
- \* Coordinate with DEQE to test and monitor the streams and brooks within the Forest.
- \* Support recommendations in the Nashua River Greenway Plan.

### MANAGEMENT RESOURCES

#### PERSONNEL

Maintenance/Operations/Management (year-round)

- 1- Senior Supervisor
- 1- Assistant Forester
- 1- Conservation Skilled Helper
- 1- Conservation Helper

## PERSONNEL (cont.)

### Maintenance/(Seasonal) Operations/Management

2- Conservation Helpers (April-October)

### Forest Information Center (year-round)

1- Visitor services (Supervisor)

### Forest Information Center (Seasonal)

2- Visitor services Assistants (April - October)

## EQUIPMENT

### Trail

- \* Four wheel drive tractor (70 hp range) with front end loader and other attachments (hydroclipper, rotary mower, sweeper, york rake, grader blade, Farmie winch, soil scarification tool)
- \* Cushman vehicle for patrol and light maintenance
- \* Snowmobile with tracking equipment for nordic skiing

### Forest

- \* Half-ton pickup truck for patrols, maintenance, etc.
- \* One ton steel body dump-truck (all wheel drive) with plow
- \* Twelve foot aluminum boat with 10 hp outboard motor and trailer
- \* variety of hand tools and specialized forestry equipment
- \* radios - both for the Forest and the trail (a base station and three portables)

## FIRE CONTROL

The following actions are recommended in the area of fire control:

- \* Continue the current staffing of the Groton fire tower during periods of fire danger.

## FIRE CONTROL (cont.)

- \* Gravel the Forest roads to provide good access for fire equipment and brush back roadsides so they are more effective fire breaks.
- \* Assign frequent patrols within the Forest during periods of fire danger for fire protection and to discourage vandalism.
- \* Establish and maintain fire holes at strategic sites throughout the Forest.
- \* Maintain the good working relationship with local fire departments.
- \* Post fire protection signs at appropriate areas.
- \* Acquire necessary new equipment for the district fire crew.

## INSECT PEST CONTROL

Conduct annual tree surveys and schedule IPC crew to remove dangerous/hazardous trees and limbs from areas with heavy public use.

Protect the Forest from major damage by conducting periodic checks to identify existing or potential threats from insects or disease.

## LAW ENFORCEMENT

DEM's Division of Forests and Parks should continue to work with the Division of Law Enforcement to enforce DEM rules and regulations (304 CMR).

Contact the State Police Mounted unit, located in Concord and ask them to routinely patrol the Forest on horseback.

The DEM mounted unit could be seasonally assigned to patrol the Forest and Rail Trails.

DEM may ask police departments from the Towns of Ayer, Groton, Dunstable and Pepperell for assistance along the Rails Trail.



## FUTURE DEVELOPMENT

Before any development is planned and constructed, three issues must be addressed:

### Water Rights

Rights to flow over parcels 1, 2 and possibly 3 (located in the Forest) which are owned by the James River Paper Company (located downstream) should be considered.

### Cultural/Historic Areas

DEM should perform appropriate investigations to discover the location of significant Cultural/Historic resource areas (Especially the site of Groton's first settlement) before beginning development projects.

### Annual Visitor Numbers

DEM must first determine how many visitors come to the Forest before developing plans for facilities to accommodate its visitors.

## FACILITIES

A Forest Information Center serving both the Forest and the ROW may be necessary. This Center would include the following:

- \* Exhibit area
- \* Concession area: ski and bike rentals, food and drink vending machines (potential uses for area)
- \* Restrooms (open from the inside and the outside)
- \* Meeting room for 30-40 people
- \* Office area

A Maintenance Facility separate from the Forest Information Center is recommended and would include:

- \* Office and work area
- \* Six garage stalls or three stalls that are double deep

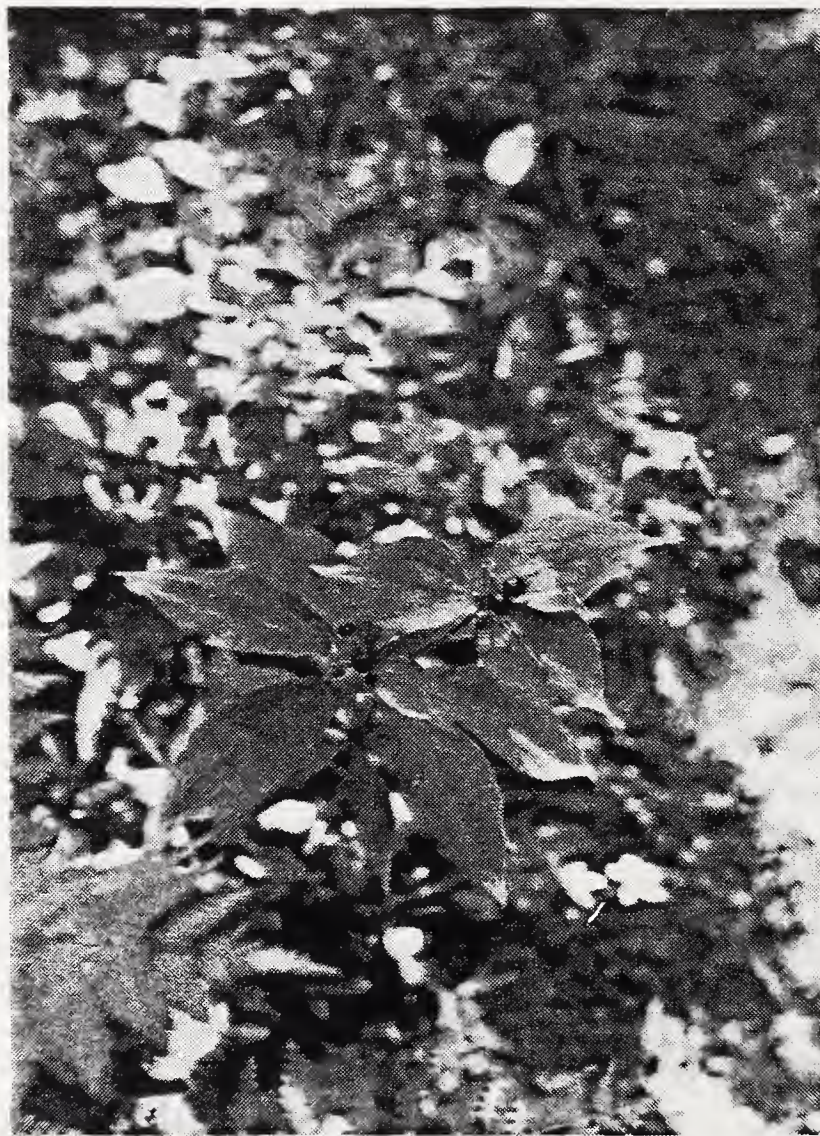
A Small Parking Lot (off of Nod Road) which exists on the property should be redesigned and should accommodate the same number of cars as already exists.(20-25)

## WILDLIFE

- \* Establish and perpetuate small patch clearings.
- \* Maintain diversity and an adequate number of snags.
- \* Control public access to heron rookery.
- \* Design and propose new forestry regulations.

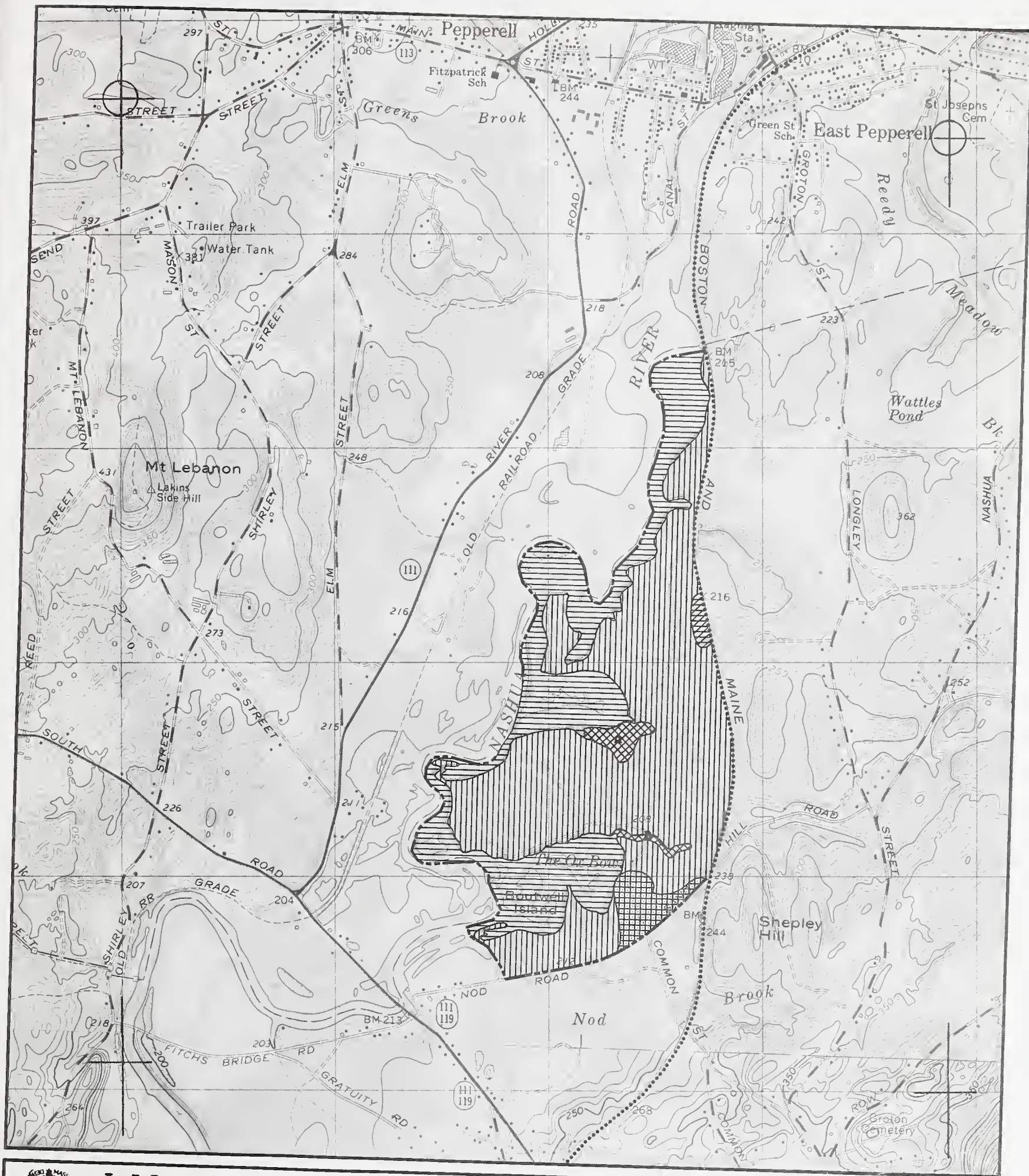
## VEGETATION

- \* Protect rare and endangered species and their habitat.
- \* Enforce DEM regulations that prohibit unauthorized cutting and/or removal of vegetation from the Forest.
- \* Protect native wildflowers and riparian vegetation.



One of Numerous Wildflowers

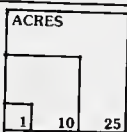




## J. Harry Rich State Forest

PREPARED BY  
THE MASSACHUSETTS DEPARTMENT  
OF ENVIRONMENTAL MANAGEMENT

Guidelines for  
Operations  
And  
Land  
Stewardship



0 500 1000 3000 FEET



### LEGEND



Unique Resource Zone  
Natural Areas Subzone

Environmental Protection Zone

Natural Resource Management Zone

Natural Resource Management Zone  
Natural Area Zone A - Large White Pines  
Natural Area Zone B - Wildflower Protection Area



Developed Lands Zone  
Reserved Area

Developed Lands Zone  
Intensive Recreation Area

## Zoning





## ACKNOWLEDGEMENTS

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